



CR188

Atty Dkt 2300-0054.10
PATENT

I hereby certify that this correspondence is being deposited with the
United States Postal Service as first class mail in an envelope
addressed to: Commissioner of Patents and Trademarks, Washington,
D.C. 20231 on 3/21/91

#4
JN
4-11-91

3/21/91
Date

Robert L. Rul
Signature

QUEST

18x 3/5/91

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

030

In Re Application of:

CARL-HENRIK HELDIN et al.

Serial No.: 07/633,671

Group Art Unit: 184

Filing Date: 26 December 1990

Examiner: Unassigned

Title: RECOMBINANT DNA ENCODING
PDGF A-CHAIN POLYPEPTIDES

INFORMATION DISCLOSURE

RECEIVED GROUP 180

STATEMENT UNDER 37 CFR § 1.97

APR 4 1991

The Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

The information listed below, which may be material to the examination of the above-identified application, was disclosed to the Examiner at page 2 of the application as originally filed. Copies of the information and completed PTO-1449 forms are submitted herewith. The Examiner is requested to make this information of official record in the application. The information includes:

Collins et al., Nature (1985) 316:748-750 relates to the c-sis gene which encodes human PDGF B-chain.

European Patent Publication No. 0177957 (16 April 1986) corresponding to U.S. Patent Numbers 4,769,328 to Murray et al., (6 September 1988), and 4,801,542 to Murray et al., (31 January 1989), is directed to the expression of the v-sis gene in eucaryotic cells.

Johnsson et al., EMBO J. (1984) 3(5):921-928 describes the amino acid sequence of PDGF-B chain and the partial amino acid sequence for PDGF A-chain.

Waterfield et al., Nature (1983) 304:35-39 discloses a partial amino acid sequence of human PDGF.

Heldin et al., Nature (1986) 319:511-514 describes an osteosarcoma-derived growth factor (ODGF) that is structurally related to a putative PDGF A-chain homodimer.

The references listed above are summarized on page 2 of the application as originally filed. The summaries contain what the undersigned believes to be the salient aspects of the cited references. They are not intended to be a comprehensive statement of the relevance of the references to the subject invention.

In addition to the information disclosed above, the following information may be material to the above-identified patent application. The Examiner is respectfully requested to make this information of official record in the instant application. The information includes:

U.S. Patent No. 4,766,073 to Murray et al., (23 August 1988) is directed to the expression of PDGF A-A homodimers, B-B homodimers, and A-B heterodimers in eucaryotic cells.

U.S. Patent No. 4,889,919 to Murray et al., (26 December 1989) relates to PDGF A-chain proteins and compositions comprising the same.

U.S. Patent No. 4,845,075 to Murray et al., (4 July 1989) pertains to PDGF B-chain proteins and wound healing compositions comprising the same.

U.S. Patent No. 4,849,407 to Murray et al., (18 July 1989) relates to mosaic dimeric PDGF proteins wherein one of the two polypeptide chains is a mosaic of amino acid sequences corresponding to portions of the A- or B-chains of PDGF and the second polypeptide chain is either the A- or B-chain of PDGF.

Betsholtz et al., Nature (1986) 320:695-699 discloses the cDNA sequence and corresponding amino acid sequence for PDGF A-chain.

Westermarck et al., Proc. Natl. Acad. Sci. USA (1986) 83:7197-7200 discloses that human melanoma cell lines express PDGF A-chain.

Doolittle et al., Science (1983) 221:275-277 compares the N-terminal amino acid sequences of human PDGF A-chain with the simian counterpart, P28sis.

The following three references pertain to the c-sis gene which encodes human PDGF B-chain.

Gazit et al., Cell (1984) 39:89-97;

Clarke et al., Nature (1984) 308:464-467; and

Josephs et al., Science (1984) 225:636-639.

The following seven references pertain to the v-sis gene which is the simian counterpart of the c-sis gene.

Kelly et al., EMBO J. (1985) 4:(13A):3399-3405;

Devare et al., Cell (1984) 36:43-49;

Wang et al., J. Biol. Chem. (1984) 259(17):10645-10648;

Hannink et al., Molecular and Cellular Biol. (1986) 6(4):1343-1348;

Fry et al., J. Cellular Physiol. (1986) 128:313-321;

Robbins et al., Nature (1983) 305:605-608; and

King et al., Proc. Natl. Acad. Sci. USA (1985) 82:5295-5299.

The summaries above contain what the undersigned believes to be the salient aspects of the cited references. These summaries are not intended to be a comprehensive statement of the relevance of the references to the subject invention. Accordingly, the references may contain information not mentioned in the summaries that the Examiner might consider material and the Examiner is thus urged to review the references and to draw his or her own conclusions as to their materiality and relevancy.

Applicants would appreciate the Examiner's initialing and returning the Form PTO-1449, indicating that the references have, indeed been considered and made of record.

This Information Disclosure Statement under 37 CFR § 1.97 is not to be construed as a representation that: (i) a search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

Respectfully submitted,
IRELL & MANELLA

By: 
Roberta L. Robins
Registration No. 33,208

545 Middlefield Road, Suite 200
Menlo Park, California 94025
Telephone: (415) 327-7250
Fax: (415) 327-2951
20 March 1991